

a3 7. (New) The method according to claim 4, further comprising heat treating said rolling raceway surface to produce residual compression stress.

Pursuant to revised Rule 121 (37 CFR 1.121), a complete, marked-up copy of the claims, as amended, appears at the end of this response.

REMARKS

Claims 1 -3 were examined.

Claims 1 - 2 stand rejected.

Claims 3 is allowed.

5 Claims 1-2 are canceled without prejudice.

Claim 3 is amended.

Claims 4-7 are added.

10 Claim 3 has been amended to merely correct a typographical error. Claim 4 is added to capture the essence of the allowable subject matter of claim 3. The addition of claim 4 is not narrowing with respect to the subject matter of the original claims. No new matter has been added. Support for the amendments is found in the original claims and specification.

Specification

The Examiner objects to the abstract for not reflecting the method of the invention. Applicants respectfully submit that the abstract presently reflects the invention as claimed at least in claim 3. Reconsideration and withdrawal of this
5 objection is respectfully requested.

The Examiner objects to the title as being non descriptive. Applicants have amended the title. Reconsideration and withdrawal of this objection is respectfully requested.

Claim Rejections - 35 USC 112

10 Claims 1 - 3 stand rejected under 35 USC 112, second paragraph, as being indefinite. Applicants respectfully submit that the claims, as amended and newly presented, overcome the rejections set forth by the Examiner in the current office action. Reconsideration and withdrawal of the rejection of claims 1-3 as being indefinite under 35 USC 112, second paragraph, is respectfully requested.

15 **Claim Rejections - 35 USC 102**

Claims 1 and 2 stand rejected under 35 USC 102(a) as being anticipated by Applicant's Adimtted Prior Art.

While not acquiescing to the merits of the rejection, Applicants have canceled claims 1 and 2. Therefore, the present rejection of claims 1 and 2 under
20 35 USC 102(a) is rendered moot and should be withdrawn.

Conclusion

Applicants appreciate the Examiner's indication of allowed subject matter. Applicants respectfully submit that independent claim 4 contains the essence of the allowed subject matter of claim 3, and therefore, should itself be allowed.

5 In view of the foregoing, the claims are now believed to be in proper form for allowance. Early notice to that end is earnestly solicited.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 13-4550.

10 In the spirit of compact prosecution, if the Examiner believes that a telephone conference would be of value, he is strongly urged to call the undersigned at the number listed below.

Respectfully Submitted,



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Date: June 19, 2001

Attached : Marked up copy of amended specification and marked-up copy of the entire set of claims, as amended and newly added. (2 pages)

Marked up copy of specification:

Title:

5 **[BEARING PARTS FOR CYLINDRICAL ROLLER BEARING AND
NEEDLE ROLLER BEARING] METHOD FOR FORMING A BEARING
RACE FOR A CYLINDRICAL BEARING**

At page 5, line 19:

10 [Fig. 1 is an] Figs. 1(a) and 1(b) are explanatory [view] views showing an
embodiment of the invention in which a bearing part according to the present
invention and a needle roller bearing having a long life roller are applied to a
planet gear supporting mechanism of a planetary gear transmission.

Marked up copy of the claims, including the entire set of pending claims, as
amended and newly added:

3. (Amended) A method for producing a bearing structure, comprising:
carbonitriding a surface of [said] a bearing part to form a layer containing
30 to 80% retained austenite for contacting a surface carburizing layer used as a
rolling raceway surface of the roller of the cylindrical bearing;
forming one of a cylindrical roller bearing and a needle roller bearing;
carbonitriding a surface of said bearing to produce an amount of retained
austenite in a surface layer that is increased by about 30%;
subjecting a surface layer of said roller to a heat treatment effective to
apply a residual compression stress; and then
subjecting said roller to a surface finishing which produces micro
concavo-convex portions in a random direction.

4. (New) A method for forming a rolling raceway surface for a cylindrical
bearing comprising:
carburizing a surface of said rolling raceway surface to produce a
carburized layer;

carbonitriding a surface layer of said carburized layer; and
the step of carbonitriding including forming a surface layer containing
from 30 to 80 % retained austenite in said rolling raceway surface.

5. (New) The method according to claim 4, further comprising:
surface finishing a surface of said surface layer after the step of
carbonitriding; and
the step of surface finishing being effective to produce a surface having
a cylindricity and a surface roughness suitable for use as a rolling raceway
surface.

6. (New) The method according to claim 5, wherein the step of finishing
includes producing micro concavo-convex portions in random directions on said
surface.

7. (New) The method according to claim 4, further comprising heat
treating said rolling raceway surface to produce residual compression stress.